

Remarks/Arguments

Claims 1-20 are pending in the present application. Reconsideration of the claims is respectfully requested.

I. 35 U.S.C. § 103, Rebuttal to Asserted Obviousness of Claims 1-9 and 12-20

The examiner rejected claims 1-9 and 12-20 under 35 U.S.C. § 103 as obvious over *Derocher et al.*, Mouse Recharging Module, U.S. Patent 6,476,795 (November 5, 2002) (hereinafter “*Derocher*”) in view of *Koripella et al.*, Direct Methanol Fuel Cell System and Method of Fabrication, U.S. Patent 6,387,559 (May 14, 2002) (hereinafter “*Koripella*”). This rejection is respectfully traversed.

The base rejections and initial response were presented at length in the response to office action filed on December 5, 2005. For clarity, Applicants rebut the examiner’s response in this response without specifically addressing the base rejections. However, Applicants maintain all arguments made in the previous response to office action and hereby reaffirm the response to the base rejections made in the previous response to office action. As shown below, the examiner continues to be in error regarding the obviousness of the claims in view of the cited references.

I.A. The Examiner’s Fundamental Assumption is Flawed

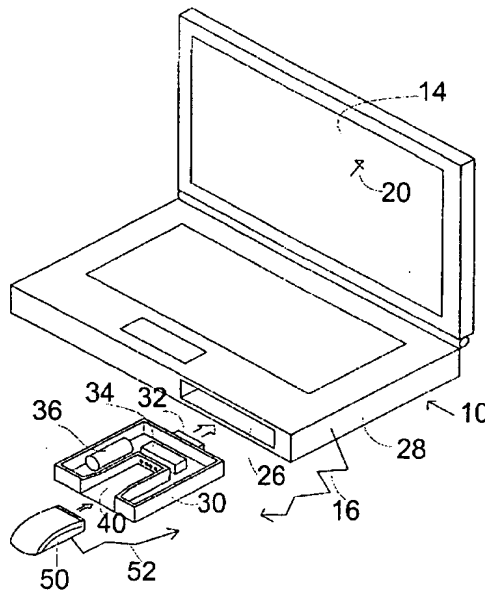
The examiner’s fundamental assumption that it would be obvious to use a fuel cell to power a wireless position and tracking system is inherently flawed. Micro fuel cells have been known for many decades. See, for example, *Anderten et al.*, Method and Apparatus for Ventilating an Occupied Space, U.S. Patent 4,164,172 (August 14, 1979), which describes using a micro fuel cell to power an oxygen sensor. Similarly, wireless portable tracking devices have been known for decades. See, for example, *Baker et al.*, Method and Apparatus for Wireless Cursor Position Control, U.S. Patent 4,578,674 (March 25, 1986). Had the proposed combination been obvious, given the value of the claimed invention, then someone of ordinary skill would have already combined a micro fuel cell and a wireless position and tracking system as suggested by the examiner. However, in the intervening decades since 1986, no one – *other than applicants and the examiner* – have recognized the claimed invention. Because thousands of engineers have failed in the past twenty years to create and

market or disclose the claimed invention, the claimed invention *must* be non-obvious.

Applicants describe *why* the claimed invention is non-obvious below.

A fuel cell converts hydrogen and oxygen into water, and in the process the fuel cell produces electricity. Thus, a byproduct of the operation of a fuel cell is *water*. One of ordinary skill would be motivated to avoid placing a fuel cell into a wireless position tracking device because the exhaust water and water vapor would damage sensitive electronics within the device.

The problem of exhaust water is more telling for the device shown by *Derocher*. *Derocher* shows that the wireless position tracking device (the mouse) is stored within the computer housing. See, for example, figure 1 of *Derocher*, reproduced below:



Because the wireless tracking device 50 is placed within housing 10, any fuel cell placed within wireless tracking device 50 would vent exhaust water into the *housing of the computer*. Even when device 50 was not in use, the fuel cell would vent some exhaust water into the housing of the computer. As a result, sensitive electronics within the computer would be damaged, metal connections would be compromised, and the entire computer 10 would be rendered useless. One of ordinary skill would be motivated to avoid this result. Therefore, no teaching, suggestion, or motivation exists to place a fuel cell within *Derocher's* device. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection against the claims.

The fact that one of ordinary skill would be motivated to avoid the invention of claim 1 shows that the examiner has not considered the entirety of the problem of providing power to a wireless optical navigation device, as claimed. The examiner has narrowly focused on whether a fuel cell could provide power to the wireless mouse of *Derocher*. However, the examiner has not considered the wisdom of doing so, the practicality of doing so, or how one of ordinary skill would implement the proposed combination.

For example, under the examiner's reasoning, it would be "obvious" to use a fusion reactor to provide power to the wireless mouse of *Derocher* because power from a fusion reactor *could* power the mouse. However, clearly no-one of ordinary skill would consider such a device "obvious" because a fusion reactor could not be housed within a mouse and because such a device would be astronomically too expensive. This example shows that the examiner's logic is flawed and also insufficient to establish the obviousness of the invention of claim 1. Instead, as shown above, one of ordinary skill would have no reason to combine the references and would, instead, be motivated to *avoid* combining the references. Accordingly, no teaching, suggestion, or motivation exists to combine the references and the examiner has failed to state a prima facie obviousness rejection against claim 1 or any of the other claims.

I.B. Specific Rebuttals

Applicants now address and rebut the examiner's assertions made in the office action of January 12, 2006. First, the examiner states that:

In section I.A applicant argues that all of the features of claim 1, are not taught by the proposed combination. Koripella teaches coupling a micro fuel cell to a rechargeable battery and to a portable electronic device. Derocher provides power for an optical position tracking system and a transmitter via a rechargeable battery, solely. Supplementing Derocher's rechargeable battery power with a micro fuel cell, as taught by Koripella, would clearly cause the micro fuel cell to provide power to the optical position and tracking system and transmitter of Derocher.

Office action of January 12, 2006, p.2 (emphasis added).

As shown above, the fact that *Derocher's* device could be powered with a fuel cell is not, itself, logically sufficient to establish the obviousness of the claimed inventions. The flaws in the examiner's logic are apparent in the light that the proposed combination would result in an unworkable device and because a fuel cell would damage *Derocher's* device.

Furthermore, had the claimed invention been obvious, then one of ordinary skill would have created, sold, or disclosed the claimed invention in the intervening decades since fuel cell technology and wireless optical navigation technology were first created. Accordingly, the examiner continues to fail to state a *prima facie* obviousness rejection of claim 1.

Nevertheless, the examiner states that:

In section I.B applicant argues that by combining Derocher and Koripella would change the principle of operation of Derocher. On the contrary, Koripella teaches the inclusion of a rechargeable battery. Koripella simply supplements the rechargeable battery with power from a micro fuel cell. Koripella's rechargeable battery is still capable of being recharged. Therefore, Derocher's rechargeable mouse would still be able to operate as prescribed, just as Koripella's portable electronic device, cell phone for example, is still functional with the addition of a micro fuel cell.

Office Action of January 12, 2006, p. 2.

Again, the examiner's fundamental assumption that one source of power can be "simply" substituted for another is fundamentally flawed, as explained above. Additionally, providing power to the wireless mouse via any principle other than that described in *Derocher* would mean modifying, altering or replacing the *principle of operation* of *Derocher's* system. The fact that *Koripella's* rechargeable battery is "still capable of being recharged" is irrelevant.

The undeniable fact is that the proposed combination would change principle of operation of *Derocher's* system from a rechargeable battery to a fuel cell. The two technologies are completely distinct and rely on different principles of operation. Therefore, proposed combination *would change* the principle of operation of *Derocher's* device. For this reason, the examiner has failed to state a *prima facie* obviousness rejection, as explained in the previous response to office action.

Nevertheless, the examiner states that:

In section I.C-E applicant argues there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cri. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cri. 1992). In this case, extending the battery life of the rechargeable battery, and thus decreasing the frequency that the mouse must be

recharged is knowledge generally available to one of ordinary skill in the art.

Office Action of January 12, 2006, pp. 2-3.

The examiner's statement, on its face, provides no teaching, suggestion, or motivation to combine the references. The examiner essentially asserts that extending the life of a battery for a wireless mouse is advantageous and is known to one of ordinary skill. The examiner thereby implies that the motivation to combine the references is to extend the life of the battery. However, the examiner provides no teaching, suggestion, or motivation from the art itself or from knowledge generally available to one of ordinary skill in the art to actually provide a fuel cell *for a wireless optical navigation device*, as claimed in claim 1. Instead, the examiner continues to rely on the false premise that one of ordinary skill could technically implement the proposed combination in the first place. The examiner also ignores the well-known fact that fuel cells and wireless position tracking systems have been well-known for decades. Instead, the examiner relies on a statement that, as explained above, is logically insufficient to establish the obviousness of claim 1 in view of the references considered as a whole.

Nevertheless, the examiner states that:

In section I.F applicant argues that the examiner's conclusion of obviousness is based on improper hindsight reasoning. It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1932, 170 USPQ 209 (CCPA 1971).

Office Action of January 12, 2006, p.3.

The examiner has not rebutted any of the arguments presented in the previous response to office action in this regard. The examiner has merely stated a purported principle of the law governing obviousness. However, the examiner has not stated how that purported principle shows that the examiner did not use improper hindsight when fashioning the obviousness rejection. Accordingly, the examiner continues to fail to assert a *prima facie* obviousness rejection in this regard.

Additionally, as shown above, both fuel cells and wireless position tracking devices have been known for decades. However, of everyone on the face of the planet only

Applicants invented the device of claim 1 and only *the examiner* has proposed that one of ordinary skill would find that device obvious in view of the cited references. In the face of the failure of thousands, perhaps millions, of individuals to make, sell, or publicly describe the claimed device in over two decades, the logical conclusion to draw is that the examiner *must* have used Applicants' own disclosure as a motivation to combine the references.

The conclusion that the examiner used impermissible hindsight is further strengthened by the technical hurdles associated with placing a fuel cell within a wireless position tracking device. The examiner has ignored the problem of exhaust water in wireless optical navigation devices for use with computers. Thus, the examiner must have referred to the benefits of using a fuel cell without considering the reasons why one of ordinary skill would not implement the proposed combination. Accordingly, the examiner did not fully consider what one of ordinary skill in the art knows and instead used Applicant's disclosure as a template for fashioning the rejection.

Nevertheless, the examiner also states that:

In response to applicant's argument that *Derocher* and *Koripella* are nonanalogous art (sec. I.G), it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

In this case, both *Derocher* and *Koripella* are directed to the applicant's current problem of effectively and efficiently supplying rechargeable power to wireless portable devices. While *Koripella* solves this problem by jointly a micro fuel cell and a rechargeable battery and *Derocher* focuses solely on a rechargeable battery, the end goal is identical, to provide a rechargeable and long lasting power supply to a wireless portable device.

Office Action of January 12, 2006, pp.3-4.

The examiner states that the end goal of both *Koripella* and *Derocher* is to provide a rechargeable and long lasting power supply to a wireless portable device. Thus, the examiner appears to state that *Derocher* and *Koripella* are both "reasonably pertinent" to the particular problem with which the applicant was concerned and, implicitly, that *Koripella* is in a different field of Applicant's endeavor.

The examiner's characterization of the problem addressed by the claimed invention is overly broad and fails the test for analogous art set forth by the court in *In re Oetiker*. The

invention of claim 1 is directed to “a wireless optical navigation device,” not simply a “wireless portable device.” Whereas it *might* be fair to characterize *Derocher* as being directed to a wireless optical navigation device, nothing in *Koripella* teaches or suggests that fuel cells are suitable for use in a *wireless optical navigation device*.

The court in *In re Oetiker* stated that:

It has not been shown that a person of ordinary skill, seeking to solve a problem of fastening a hose clamp, would reasonably be expected or motivated to look to fasteners for garments.

In re Oetiker, 977 F.2d 1443, 1447 (Fed. Cir. 1992).

The court found that a person of ordinary skill would not reasonably be expected or motivated to look to fasteners for garments for solutions to a problem regarding fastening a hose clamp. Both the reference (fasteners for garments) and the invention in that case (device for fastening a hose clamp) involved extremely similar devices; namely, both the reference and the invention in that case were related to the general problem of fastening small objects together. However, the court nevertheless deemed the reference in *In re Oetiker* to be non-analogous art.

In the case at hand, the invention of claim 1 is directed to a wireless optical navigation device. For purposes of argument, Applicants assume here that *Koripella* solves a problem of providing power to a cell phone. However, a cell phone is different than a wireless optical navigation device, much like fasteners for garments are different than devices for fastening a hose clamp. The fact that both a cell phone and a wireless optical navigation device possibly could be characterized as portable electronic devices is irrelevant under the standards of *In re Oetiker* because the devices themselves must be considered, not some broad category into which both devices can be included.

Thus, *Koripella* is not reasonably related to the problem to be solved, even if the examiner’s characterization of the problem claim 1 solves is correct. Additionally, the examiner appears to implicitly admit that *Koripella* is in a different field of endeavor from the claimed invention. Accordingly, *Koripella* fails both tests of *In re Oetiker*. For this reason, *Koripella* is non-analogous art.

I.C. Summary

As shown above, one of ordinary skill would not be motivated to combine the references to achieve the invention of claim 1. Instead, one of ordinary skill would be

motivated to avoid combining the references because of the problems associated with water exhaust in fuel cells. Additionally, fuel cells and wireless optical navigation devices have been known for decades. Had claim 1 been obvious then one of ordinary skill would have already created, sold, or publicly described the invention of claim 1. Additionally, the examiner has logically failed to rebut any of the arguments presented in the prior response to office action. Accordingly, claim 1 is not obvious and the examiner has failed to state a *prima facie* obviousness rejection of claim 1. The remaining claims contain features similar to those presented in claim 1 and the remaining rejections all rely on *Derocher* to some extent. Thus, the examiner has failed to state *prima facie* obviousness rejections against any of the claims.

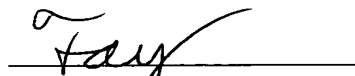
II. Conclusion

It is respectfully urged that the subject application is patentable over the cited references and is now in condition for allowance.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

DATE: April 12, 2006

Respectfully submitted,



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